

THE MAP PEDOMETER, or UNIVERSAL MEASURER,

INVENTED by J. J. DALLAWAY, MATHEMATICAL INSTRUMENT-MAKER,

No. 4, GEORGE-LANE, behind the MONUMENT, LONDON;

To Measure DISTANCES on MAPS, PLANS, &c. applicable to any SCALE, by REFERENCE to the annex'd TABLE.

Number of Revolutions on the Dial Plate.

Number of Divisions or Parts of a Revolution on the small Wheel.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400
2	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
3	6.66	13.33	20	26.66	33.33	40	46.66	53.33	60	66.66	73.33	80	86.66	93.33	100	106.66	113.33	120	126.66	133.33
4	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
5	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
6	3.33	6.66	10	13.33	16.66	20	23.33	26.66	30	33.33	36.66	40	43.33	46.66	50	53.33	56.66	60	63.33	66.66
7	2.85	5.71	8.57	11.42	14.28	17.14	20	22.85	25.71	28.57	31.42	34.28	37.14	40	42.85	45.71	48.57	51.42	54.28	57.14
8	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5	30	32.5	35	37.5	40	42.5	45	47.5	50
9	2.22	4.44	6.66	8.88	11.11	13.33	15.55	17.77	20	22.22	24.44	26.66	28.88	31.11	33.33	35.55	37.77	40	42.22	44.44
10	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
11	1.81	3.63	5.45	7.27	9.09	10.9	12.72	14.54	16.36	18.18	20	21.81	23.63	25.45	27.27	29.09	30.9	32.72	34.54	36.36
12	1.66	3.33	5	6.66	8.33	10	11.66	13.33	15	16.66	18.33	20	21.66	23.33	25	26.66	28.33	30	31.66	33.33
13	1.53	3.07	4.61	6.15	7.69	9.23	10.76	12.3	13.84	15.38	16.92	18.46	20	21.53	23.07	24.61	26.15	27.69	29.23	30.76
14	1.42	2.85	4.28	5.71	7.14	8.57	10	11.42	12.85	14.28	15.71	17.14	18.57	20	21.42	22.85	24.28	25.71	27.14	28.57
15	1.33	2.66	4	5.33	6.66	8	9.33	10.66	12	13.33	14.66	16	17.33	18.66	20	21.33	22.66	24	25.33	26.66
16	1.25	2.5	3.75	5	6.25	7.5	8.75	10	11.25	12.5	13.75	15	16.25	17.5	18.75	20	21.25	22.5	23.75	25
17	1.17	2.35	3.53	4.7	5.88	7.06	8.23	9.41	10.58	11.76	12.94	14.11	15.29	16.47	17.64	18.82	20	21.17	22.35	23.53
18	1.11	2.22	3.33	4.44	5.55	6.66	7.77	8.88	10	11.11	12.22	13.33	14.44	15.55	16.66	17.77	18.88	20	21.11	22.22
19	1.05	2.1	3.15	4.21	5.26	6.31	7.36	8.42	9.47	10.52	11.57	12.63	13.68	14.73	15.78	16.84	17.89	18.94	20	21.05
20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

I. MEASURE the Scale of the Map, or any Portion of it, by observing the Number of Divisions, or Parts of a Revolution, on the Wheel equal thereto. Suppose thirteen Divisions equal one League, Mile or Furlong.

II. Trace any Distance required on the Map, and observe the Number of Divisions, marked by the Index, on the Dial Plate, which are equal to the Number of Revolutions of the Wheel—Suppose fifteen Revolutions have been traced.

III. In a Line with the Number of Divisions in the first Column of the Table, and under the Number of Revolutions in the upper Column, you will find the required Distance.

EXAMPLE—In a Line with 13, and under 15, you will find 23 the Number of Leagues, Miles, or Furlongs required, as the Case may be.

Another EXAMPLE—Suppose seventeen Divisions equal three hundred Yards or Feet on the Scale, the Distance traced equal eight Revolutions, opposite 17 under 8, you have

9.41, which multiplied by 300 gives 2823 Yards or Feet as required.

Where Accuracy is required the fractional Parts of a Revolution (if any) must be computed.

LATITUDES, LONGITUDES,

OF THE DI

LIGHT-H

Erected in the NORTHERN PAR

By COMMISSIONERS appointe

Kinnaird's Head.

Lighted on the 1st
December, 1787.

LIGHT-HOUSE on *Kinnaird* Castle, at *Kinnaird's Head*, near *Fra-*
serburg, on the East coast of SCOTLAND; lat. 57 deg. 42 min. long. 1
deg. 20 min. West of LONDON;—*Cairnbulg*, from the Light-House,
bearing S. E. dist. 1 mile;—and *Troup Head*, W. N. W. dist. 15 miles.

The Lantern is 120 feet above high-water-mark.—At the desire of
a number of Shipmasters, the Light has been greatly strengthened to the
South-east, and is now seen over the land at *Cairnbulg*, close in with the
shoal of rocks off *Rattray Head*, commonly known by the name of *Rattray*
Briggs, about 8 miles distant from the Light.

Pentland Skerries.

Were lighted on
the 1st Oct. 1794.

TWO LIGHT-HOUSES, on the largest of the *Pentland Skerries*, (one of
the *Orkney* Islands;) lat. 58.42. long. 2.42. West of LONDON; the north-
most, from high-water-mark, to top of the Vane, is 116 $\frac{1}{2}$ feet high, and
the other is 94. $\frac{1}{2}$ feet: The distance between the two Lights is 66 feet;
and are situated S. S. W. $\frac{1}{4}$ S. and N. E. $\frac{1}{4}$ N.

The bearings from the highest Tower are as follow, viz. The West-
end of the *Little Skerry*, S. by W. $\frac{1}{2}$ W. dist. 1 $\frac{1}{4}$ mile;—the extremity
of the foul ground of the *Little Skerry*, S. E. dist. 1 $\frac{1}{2}$ mile;—length of
the *Little Skerry*, and foul ground, 1 $\frac{1}{2}$ mile;—*Duncan's By-head*, W. S. W.
dist. 4 $\frac{1}{2}$ miles;—*Nofs-head*, S. W. by W. dist. 14 miles;—North Point of
Stroma Island, N. W. by W. dist. 6 $\frac{1}{2}$ miles;—South West-end of *Lothar*